Doubletree Systems Inc.

POLARIS® Signature Analysis Module

In substations, there are several usages of motors, such as LTC, Compressors, Pumps, etc. It is important for maintenance to know what are their conditions. POLARIS Signature subsystem is an economic solution to this issue.

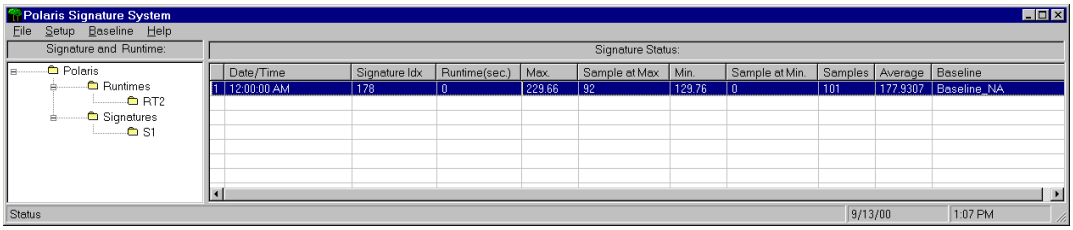
Basically, POLARIS signature can monitor and analysis the followings
Motor currents/power during every operation
Running times of motor or compressors, etc.

FUNCTION DESCRIPTION

The POLARIS Signature calculates the followings based on the baseline for each capturing signature.

Signature Index:	**Performance index compared to the baseline**
Run time:	**Motor running time in seconds**
Samples:	**Number of samples of the signature**
Maximum/Minimum:	**Max./Min. value of the signature**
Sample at Max.	**The sample when the value reaches the maximum**
Sample at Min.	**The sample when the value reaches the minimum.**
Average:	**The average value of the signature**

For pure running time measurement, the POLARIS signature measures the running time only.



The POLARIS Signature Manager and View Module lets you manage and create baselines as well as view the signature waveform.

All the data are logged in the relational database with timestamp and can be viewed in an explore form.

And there is no limit on number of signatures and runtime measurements in a substation.

SPECIFICATIONS:

The waveform resolution:

- 100 ms – 200 ms

Maximum capturing length:

- 60 seconds

Analog Inputs:

- 5,10,15,20,30,50,75,100 RMS Amp (50-60 Hz), Clamped on or solid CT
- 4-20 mA, 0-20 mA, 0-5 Vdc, 0-30 Vdc, etc.
- RTDs, Thermocouples

Digital Inputs: 5- 240 Vac/Vdc, TTL/CMOS

IO Operating Environment

- -40 to 55 ^{o}C, 5 to 95% relative humility non-condensing
- NEMA 4 enclosure

Communication between the IO and POLARIS: 10/100 Mbit Ethernet

DSI Solution:

POLARIS series has POLARIS lite, POLARIS Plus, and POLARIS DB.